

**CROP VARIETIES RELEASED BY  
PROFESSOR JALAL A. ALIYEV**

## MIRBASHIR-50

### DURUM WHEAT VARIETY



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The variety has been included in the State Register of Selection Achievements of the Republic of Azerbaijan in 1988 and is protected by a patent (Patent № 4650).

**Origin:** Variety has been obtained by individual selection from intraspecific hybridization of the Mexican origin “Pobellon-67” variety and Sharg variety in the Research Institute of Crop Husbandry.

**General characteristics:** May be spring or winter types depending on cultivation season. In irrigation conditions plant height is 100-110 cm, relatively resistant to lodging. Medium maturing matures simultaneously with Sharg variety.

**Diversity:** *leukurum*. Spike is of prismatic shape and is very dense. Spikelet glume is rounded-oval, venation is clearly observable. Keel barb is short and sharp. Shoulder of the spikelet glume is slender. Awns are oblong, poorly dissipated, rough and with barbs. Grain of the variety is very large, with shallow furrow, color is white, vitreous, oval in shape.

**Productivity:** The average productivity of the variety in irrigation conditions was 4.80 ton ha<sup>-1</sup>, outyielding the check variety by 0.98 ton ha<sup>-1</sup>. Potential productivity is 5.5-6.0 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 43-52 grams. Pasta quality of grain is good, protein content of the grain is 13-16%, and gluten content is 24-33%.

**Resistance to diseases and climatic conditions:** Variety is weakly infected with smut and rust diseases, and moderately infected with septoriosiis and powdery mildew. Winterhardness resistance of the variety is low. Resistant to drought and shattering.

**Cultivation regions and preceding crops:** Variety was assigned for cultivation in irrigated and rainfed regions of the Republic. In irrigated regions recommended preceding crop is cotton and other row crops, but in rainfed regions cultivation after bare fallow is relevant.

**Sowing time:** The optimum seeding period in rainfed foothill conditions is a period between the late September and early October, and in irrigated lowlands – from October 20 till November 10. The variety could give normal yield even sown at the end of November after cotton as a preceding crop.

**Seeding rate:** In rainfed foothill conditions - 3.0-3.5 millions, in irrigation conditions – 3.5-4.0 million viable seeds per hectare is considered the optimum seeding rates. In late seeding this rate should be increased by 10 %.

**Fertilizer rate:** In order to obtain high and quality grain-grades yield application of active phosphorus and potassium at a rate of 70-90 kg and 40-60 kg per hectare respectively before ploughing and 80-120 kg of nitrogen in two applications during cultivation period should be ensured.

# GARAGYLCHYG-2

## DURUM WHEAT VARIETY



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The variety has been included in the State Register of Selection Achievements of the Republic of Azerbaijan in 1990 and is protected by a patent (Patent № 5249).

**Origin:** Variety has been obtained by multilayer individual selection from cross-breeding of the local Garagylchyg and Norin-10 varieties in the Research Institute of Crop Husbandry.

**General characteristics:** Variety is of semi-winter type, short height (78-85 cm), resistant to lodging, early maturing, tillering is high, plant color in stem elongation stage is light green.

**Diversity:** *apulicum*. Spike is cylindric shaped, large sized, density is medium. Awns are oblong, slightly rough, weakly barbed, black colored. Spikelet glumes are oblong, oval, densely hairy, large and reddish colored. Grain of the variety is of medium size, with superficial furrow, white colored, vitreous, semi-oblong, and base is hairless.

**Productivity:** The average productivity of the variety was 6.0 ton ha<sup>-1</sup>. It outyields other registered wheat varieties by 0.5-0.8 ton ha<sup>-1</sup> grain yield. Preference is given to this variety in all regions of the Republic where durum wheat cultivation is dominant due to its high productivity. Potential productivity is 7.0-8.0 ton ha<sup>-1</sup>, under good agrotechnical care in farm condition it yielded 6.0.-7.0 ton ha<sup>-1</sup> grain.

**Grain quality:** 1000 kernel weight is 45-50 gram. Grain vitrescence is 96-100%, grain protein content is 15.0-16.0%, gluten content is 28-32%. The overall pasta quality is very high.

**Resistance to diseases and climatic conditions:** Resistant to rust diseases, powdery mildew and covered smut, may be weakly infected with loose smut. Poorly infected by stinking smut. Its winterhardiness and resistance to drought is weak..

**Cultivation regions and preceding crops:** Variety was assigned for cultivation in irrigated foothill and lowland, foothill steppe and lower mountain regions of Azerbaijan. In irrigated regions it is appropriate to cultivate mainly after cotton, and in rainfed regions – after bare fallow.

**Sowing time:** The optimum sowing time is from October 20 till November 15. However delayed sowing is also possible.

**Seeding rate:** Under optimum sowing time in irrigation conditions - 4.0-4.5 million, in rainfed conditions – 3.5-4.0 million viable seeds should sown per hectare.

**Fertilizer rate:** In order to obtain high and quality grain-grades 90-120 kg of active phosphorus, 50-60 kg of potassium and 90-120 kg of nitrogen fertilizers should be applied per hectare.

# TARTAR

## DURUM WHEAT VARIETY



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The variety has been included in the State Register of Selection Achievements of the Republic of Azerbaijan in 1992 and is protected by a patent (Patent № 00001).

**Origin:** Variety has been obtained from intraspecific hybridization of the Italian origin “Georgio-447” variety and “Mahsuldar” variety in the Research Institute of Crop Husbandry.

**General characteristics:** Variety is intensive, winter type, fully resistant to lodging. Plant height is 90-95 cm. Vegetation period is 180-218 days. Late maturing, tillering is good. Plant tillering is medium. Plant color in stem elongation period is green.

**Diversity:** *provinciale*. Length and density of spike are medium. Spikelet glume is sharp, oblong-oval, poorly sharpened, shoulder is narrow and spury. Awns are oblong, black colored, rough and poorly dissipated. Number of grains per spike is 50-52.

**Productivity:** The average productivity of the variety at the Terter Regional Experiment Station in irrigation conditions was 6.39 ton ha<sup>-1</sup>, it outyielded the check variety by 1.38 ton ha<sup>-1</sup>. Potential productivity of the variety is 6.5-7.0 ton ha<sup>-1</sup>.

**Grain quality:** Grain is very large. 1000 kernel weight is 53-58 gram. Grain vitrescence is 90-100%, protein content of the grain is 15.4-16.0%, gluten content is 28-30%. Pasta quality is satisfactory.

**Resistance to diseases and climatic conditions:** It is weakly infected with rust and powdery mildew diseases, moderately infected by stem rust. Resistant to smut diseases. Winterhardiness is weak.

**Cultivation regions and preceding crops:** The variety is recommended to be grown in irrigated lowland regions of the Republic. It is more appropriate to be grown after cotton and other row crops.

**Sowing time:** A period between the second half of October and the first decade of November is considered the optimum sowing time. Delayed sowing is also possible if preceding crop is cotton.

**Seeding rate:** 4.0-4.5 million seeds with good germinating ability should be sown per hectare. In case of late seeding this rate can be increased by 10 %.

**Fertilizer rate:** The variety requires to be grown under preceding cultural agricultural practice taking into account that it is high yielding. So, 90-100 kg of active phosphorus and 50-60 kg of potassium per hectare should be applied before ploughing in two applications and 80-120 kg of nitrogen during cultivation period.

# VUGAR

## DURUM WHEAT VARIETY



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The variety has been included in the State Register of Selection Achievements of the Republic of Azerbaijan in 1994 and is protected by a patent (Patent № 00007).

**Origin:** Variety has been obtained by individual selection from intraspecific hybridization of the Mexican origin Oviachic-65 durum wheat variety and the local Sharg variety in the Research Institute of Crop Husbandry.

**General characteristics:** Variety is semi-winter type of medium height (85-90 cm), medium early maturing, vegetation period is 192-220 days, tillering is good, resistant to drought. Plant color during development period is light green.

**Diversity:** *leukurum*. Spike is white colored, prismatic, fine, dense, non-bending. Spikelet glume is blunt, barbs are short and sharp. Awns are oblong, white, rough, tooth-shaped and poorly branched. Grain of the variety is of medium size, furrow is medium, color is white, vitreous, oblong, and base is hairless.

**Productivity:** The average productivity in irrigation conditions is 6.73 ton ha<sup>-1</sup>, outyields the check variety by 1.5-2.0 ton per hectare. Potential productivity in irrigation conditions is 6.0-7.0 ton ha<sup>-1</sup>. In rainfed conditions 3.5-4.5 ton grain yield could be obtained. Relatively high yield could be obtained even in late sowing.

**Grain quality:** 1000 kernel weight is 50-55 gram, grain vitrescence is 85-99%, protein content of the grain is 14-15%, gluten content is 28-30%.

**Resistance to diseases and climatic conditions:** Resistant to rust diseases, powdery mildew and covered smut. The variety is resistant to drought compared to other durum wheat varieties registered. Frost resistance is low.

**Cultivation regions and preceding crops:** Despite the fact that the variety was assigned for cultivation in irrigated regions. Its cultivation in rainfed regions with sufficient precipitation is also considered appropriate. There is a huge crop area sown to this variety in southern Mugan. Cotton and other row crops were performed relevant as preceding crops in irrigated agriculture and bare fallow in rainfed agriculture.

**Sowing time:** A period between the second decade of October and the first decade of November is considered the optimum sowing time.

**Seeding rate:** Seeding of 4.0-4.5 million grain with good germinating power in irrigated condition, and 3.5-4.0 million grains with good germinating power in rainfed condition per hectare is recommended. In late seeding this rate should be increased by 10%.

**Fertilizer rate:** In order to obtain high and quality yield it is recommended to apply 80-100 kg of active phosphorus, 50-60 kg of potassium and 90-120 kg of nitrogen fertilizers per hectare.

## SHIRASLAN-23

### DURUM WHEAT VARIETY



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The variety has been included in the State Register of Selection Achievements of the Republic of Azerbaijan in 1996 and is protected by a patent (Patent № 00023).

**Origin:** Variety has been obtained in the Research Institute of Crop Husbandry by individual selection from intraspecific hybridization of the local Sharg variety and the Mexican origin Oviachic-65 variety due to their short height, early maturity and other important agronomic traits.

**General characteristics:** The variety's characteristic features include short height (82-85 cm), intensive type, resistant to lodging, semi-winter type, early maturity. It matures 5-8 days earlier than Sharg variety. Tillering is good.

**Diversity:** *leukurum*. Spikelet's length and density are medium, they are prismatic, awns are oblong and white colored. Number of grains per spike is 50-54.

**Productivity:** The 3-year average productivity of the variety in irrigation conditions was 5.8-6.2 ton ha<sup>-1</sup>. In drought years it outyields the other registered variety by 0.5-0.8 ton ha<sup>-1</sup>. Potential productivity of the variety is 6.0-7.0 ton ha<sup>-1</sup>.

**Grain quality:** Grain is large, 1000 kernel weight is 50-54 gram. Grain protein content is 14.0-15.5%, gluten content is 28.0-30.0%. Grain is vitreous.

**Resistance to diseases and climatic conditions:** Resistant to rust and powdery mildew diseases, covered and loose smut and drought.

**Cultivation regions and preceding crops:** Cultivation in irrigated and rainfed regions with mild winters is recommended. In irrigated condition it is more appropriate to plant after cotton and other row crops, but in rainfed condition – after bare fallow and cropped fallow.

**Sowing time :** A period between the second half of October and the first half of November is considered the optimum sowing time.

**Seeding rate:** The optimum recommended seeding rate is 4.0-4.5 million seeds with good germinating power per hectare.

**Fertilizer rate:** The variety requires to be grown under preceding cultural agricultural practice. It is recommended to apply 80-120 kg of active phosphorus, 50-60 kg of potassium per hectare before ploughing and 100-120 kg of nitrogen fertilizers in two applications.



## TARTAR-2

### DURUM WHEAT VARIETY



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Variety was submitted to the State Committee on Testing and Protection of Selection Achievements in 1996.

**Origin:** Variety has been obtained by multilayer individual selection from the local Terter variety at the Terter Regional Experiment Station of the Research Institute of Crop Husbandry.

**General characteristics:** Variety is of medium height (108-114 cm), resistant to lodging, winter type, late maturing. Vegetation period in irrigation condition is 217-222 days. Tillering is good. Foliage color in tillering period is light green and moderately covered with waxy layer. Resistant to shattering.

**Diversity:** *provinciale*. Spike is spindle shaped, black colored and medium sized. Spikelet glume shape is oblong oval, nervation is poor, shoulder size is short, shape is bending inside. Awns are oblong, parallel, color is black. Grain of the variety is large, furrow is medium, color is white, shape is oblong, and base is hairless.

**Productivity:** The average productivity of the variety in irrigation condition was 5.89 ton ha<sup>-1</sup>, which was 0.4-0.6 ton ha<sup>-1</sup> higher than the check variety. Potential productivity of the variety is 6.5-7.5 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 58-60 gram. Grain vitrescence is 95-100%, protein content of the grain is 15-16%, gluten content is 29-32%.

**Resistance to diseases and climatic conditions:** Moderately resistant to rust diseases, and moderately sensitive to covered smut. Resistance to frost is low.

**Cultivation regions and preceding crops:** The variety is recommended to be cultivated in irrigated lowland regions of the Republic. It is more appropriate to be sown after cotton and other row crops.

**Sowing time:** A period between the second and third decades of October is considered the optimum sowing time for the variety.

**Seeding rate:** Seeding of 4.0-4.5 million viable seeds per hectare at optimum seeding period is recommended.

**Fertilizer rate:** Variety requires soil fertility. It is recommended to apply 80-120 kg of active phosphorus, 50-60 kg of potassium per hectare before ploughing and 90-100 kg of nitrogen fertilizers in two applications.

# BARAKATLI-95

## DURUM WHEAT VARIETY



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The variety has been included into the State Register of Selection achievements of the Republic of Azerbaijan since 1999 and is protected by a patent (Patent № 00044).

**Origin:** Variety has been obtained at the Research Institute of Crop Husbandry by individual selection from intraspecific hybridization of the local Gyrmyzy Bugda and Garagylchyg-2 varieties due to their high productivity, quality and resistance to extreme factors.

**General characteristics:** Variety is of intensive type, medium height (88-97 cm), semi-winter type, vegetation period is 210-219 days, tillering is good, plant color in stem elongation stage is light green.

**Diversity:** *hordeiform*. Spike is red colored, prismatic in shape. Spikelets are densely located, awns are oblong, of reddish color, and barbed. Grain of the variety is large, furrow is of medium depth, color is white, shape is oblong.

**Productivity:** The average productivity of the variety in farm condition under optimum nutrition regime was more than 5.0 ton ha<sup>-1</sup>. Potential productivity of the variety in irrigated condition is 7.0-8.0 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 56-60 gram. Grain vitrescence is 85-90%, grain protein content is 13.5-14.5%, gluten content is 26.0-28.0%.

**Resistance to diseases and climatic conditions:** Resistant to rust, powdery mildew, smut diseases, drought and frost.

**Cultivation regions and preceding crops:** Cultivation in irrigated, foothill and rainfed is proposed. In irrigated condition it is more appropriate to be sown after cotton, and other row crops, but in rainfed condition – after bare fallow and seed fallow.

**Sowing time:** A period between the second half of October and the first half of November is considered the optimum seeding period for the variety.

**Seeding rate:** 4.0-4.5 million seeds with good germinating power should be sown per hectare. In areas with late seeding this rate can be increased by 10%.

**Fertilizer rate:** Variety requires to be grown under preceding cultural agricultural practice. It is recommended to apply 90-120 kg active phosphorus, 50-60 kg potassium per hectare before ploughing and 100-120 kg nitrogen during cultivation period in two applications.



# TURAN

## DURUM WHEAT VARIETY



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The variety has been included into the State Register of Selection achievements of the Republic of Azerbaijan since 1999 and is protected by a patent (Patent № 00045).

**Origin:** Variety has been obtained by multilayer individual selection from mixture of durum wheat hybrids at the Research Institute of Crop Husbandry.

**General characteristics:** Height of the variety is medium (106-114 cm), it is resistant to lodging. Vegetation period is 218-230 days, matures 5-7 days later than Garagylchyg-2 variety. Tillering is good. Color of sprouts and foliage in stem elongation stage is light green, covered with waxy layer.

**Diversity:** *leukomelan*. Spike is of medium size, spindle shaped. Spikelet glume is oblong oval, keel barb is short and sharp, shoulder shape is slender. Awns are oblong, parallel, rough, and color is black. Grain of the variety is large, furrow is superficial, color is white, and shape is ovoid.

**Productivity:** The average productivity of the variety at the Tartar Regional Experiment Station in irrigated condition was 7.05 ton ha<sup>-1</sup>, which outyielded other registered varieties by 0.6-0.8 ton ha<sup>-1</sup>. Potential productivity is 7.0-7.5 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 50-61 gram. Grain vitrescence is 80-100%, grain protein content is 14.5-15.5 %, gluten content is 28-30%. Pasta quality of the grain is good.

**Resistance to diseases and climatic conditions:** Resistant to rust and powdery mildew diseases, and is weakly infected with covered smut. Winterhardiness is good in irrigated lowland regions of Azerbaijan.

**Cultivation regions and preceding crops:** The variety is recommended for cultivation in irrigated plain areas of Garabagh, Mil and Shirvan regions. It is more appropriate to be sown after cotton and other row crops. .

**Sowing time:** A period between the second and third decades of October is considered the optimum sowing time for the variety. However, it is possible to obtain a high yield in delayed sowing after cotton as preceding crop.

**Seeding rate:** 4.0-4.5 million germinable seeds should be sown per hectare. Seeding rate should be increased by 10% in case of late seeding.

**Fertilizer rate:** It is recommended to cultivate the variety under preceding cultural agricultural practice taking into account that it is high productive. It is recommended to apply 80-120 kg active phosphorus, 60 kg potassium and 100-120 kg nitrogen fertilizers.

## ALINJA-84

### DURUM WHEAT VARIETY



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Variety is included into the State Register of selection achievements of Azerbaijan Republic since 2000 and is protected by a patent (Patent № 00048).

**Origin:** Variety has been obtained at the Research Institute of Crop Husbandry by individual selection from intraspecific hybridization of the local Sharg and Vugar varieties due to their productivity, quality and other significant agronomic traits.

**General characteristics:** Variety is of intensive type, medium height (85-95 cm), resistant to lodging, semi-winter, early maturing, tillering is good, vegetation period is 210-215 days.

**Diversity:** *leukurum*. Length and density of spike is medium, shape is cylindric. Spikelet glume is oblong-oval, poorly nervated. Spike and awns are white colored. Grain of the variety is large, furrow is of medium depth, color is white, and shape is oblong.

**Productivity:** The average productivity of the variety in farm condition was 5.5-6.0 ton ha<sup>-1</sup>, which outyielded other registered varieties by 0.8-1.0 ton ha<sup>-1</sup>. Potential productivity of the variety in irrigated condition is 7.5-8.5 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 55-60 gram. Grain vitrescence is 88-92%, protein content is 13-15%, gluten content is 26-28%. Pasta quality is good.

**Resistance to diseases and climatic conditions:** Resistant to rust and powdery mildew, is weakly infected with covered smut. Resistant to drought, winter resistance is weak.

**Cultivation regions and preceding crops:** The variety is recommended to be grown in rainfed regions with mild winter and in irrigated lowlands. It is more appropriate to be grown after cotton and other row crops, after bare fallow and full fallow.

**Sowing time:** Period between the second half of October and the first decade of November is considered the optimum sowing time.

**Seeding rate:** 4.0-4.5 million seeds with good germinating power should be seeded per hectare. In case of late sowing this rate should be increased by 10%.

**Fertilizer rate:** Variety requires to be grown under preceding cultural agricultural practice. Application of 90-120 kg of active phosphorus, 50-60 kg of potassium per hectare before ploughing and 100-120 kg of nitrogen fertilizers in two applications is recommended.

# SABA

## BREAD WHEAT VARIETY



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The variety was submitted to the State Committee for Testing and Protection of Selection Achievements in 1997.

**Origin:** Variety has been obtained from complex hybridization of Georgian Tetri ipkli, Yugoslavian Panoniya-43319 and Bezostaya-1 varieties at the Research Institute of Crop Husbandry.

**General characteristics:** Variety is of medium height (90-110 cm), resistant to lodging. Vegetation period is 190-210 days, matures simultaneously with check varieties. Tillering is good. Sprouts and foliage in stem elongation stage are green.

**Diversity:** *lutescence*. Spike is of cylindrical shape. Spikelet glum is ovoid, keel barb is short, sharp, shoulder shape is wide flat and weak. Grain of the variety is of medium size, furrow is medium, color is red, shape is semicircular, base is hairy. Spikelets are located within the spike moderately dense, number of grains per spike is 42-48.

**Productivity:** In comparison with check variety it yielded 0.4 ton ha<sup>-1</sup> more grain yield. Potential productivity is 6.0-6.5 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 43-45 gram, grain protein content is 12-14 %, gluten content is 25-29 %. Possesses high technological and baking quality.

**Resistance to diseases and climatic conditions:** Moderately resistant to rust diseases, resistant to smut diseases. Wintering is good.

**Cultivation regions and preceding crops:** Cultivation in irrigated lowlands and foothill regions of the Republic is recommended. Seeding after cotton and other row crops is more appropriate.

**Sowing time:** A period between the second decade of October and the first decade of November is considered the optimum sowing time.

**Seeding rate:** 4.5-5.0 million viable seeds per hectare are recommended.

**Fertilizer rate:** In order to obtain haigh yield 100-150 kg active phosphorus, 60 kg of potassium and 100-120 kg of nitrogen fertilizers should be applied per hectare.

## AKINCHI– 84

### BREAD WHEAT VARIETY



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The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2000 and is protected by patent (Patent № 00050).

**Origin:** Variety has been obtained by individual selection from bread wheat varieties of Hungary origin at the Research Institute of Crop Husbandry.

**General characteristics:** Variety is lodging-resistant; plant height varies from 85 to 95 cm. Sprouts and spikes are dark green. Vegetation period in irrigated condition is 216-220 days, maturing 2-3 days earlier than other registered varieties.

**Diversity:** *erythrospermum*. Spike is of cylindrical shape and medium length (10-12 cm). Spikelet glume is of oval shape, barb is bending backwards, shoulder is spury, awns are of medium length, parallel and rough. Grain of the variety is large, oval in shape, red colored, furrow is superficial, base is hairy.

**Productivity:** The 3-year average productivity of the variety at the Tartar Regional Experimental Station in irrigated condition is 6.45 ton ha<sup>-1</sup>, outyielding the check variety Bezostaya-1 by 0.50 ton. High productive variety. Potential productivity is 6.5-7.5 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 47-53 gram. Grain protein content is 13.8-14.3 %, gluten content is 24-28 %.

**Resistance to diseases and climatic conditions:** Weakly infected with fungal diseases. Wintering is good in Azerbaijan condition.

**Cultivation regions and preceding crops:** Cultivation mainly in irrigated lowlands and partially in rainfed areas with sufficient moisture is recommended. The best preceding crops for the variety in irrigated regions are perennial crops row crops, but in rainfed areas with sufficient moisture – bare fallow and full fallow.

**Sowing time:** The optimum sowing time in irrigated condition is a period between the second decade of October and the first decade of November but in rainfed condition – between 20 September and 10 October.

**Seeding rate:** The recommended seed rate in irrigated condition is 4.5-5.0 million, and in rainfed foothill regions – 4.0-4.5 million viable seeds per hectare.

**Fertilizer rate:** Depending on preceding crops 90-100 kg of active phosphorus, 50-60 kg of potassium and 90-120 kg of nitrogen fertilizers is considered optimum fertilizer rate for the variety.

## GIYMATLI - 2/17

### BREAD WHEAT VARIETY



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The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2001 and is protected by patent (Patent № 00059).

**Origin:** Variety has been obtained by individual selection from gene pool of bread wheat accessions introduced from International breeding centers and adapted to local condition at the Research Institute of Crop Husbandry.

**General characteristics:** Intensive type, medium height (85-95 cm), tillering is good, stem is hard, resistant to lodging. Vegetation period is 215-220 days, plant color is whitish-green.

**Diversity:** *velutinum*. Spike is oblong, prismatic, awnless. Spikelets are located very densely, resistant to shedding. Whitish grey color of the spike allows easily differentiating it from other varieties. Grain of the variety is of medium size, with medium furrow, red color, ovoid shape, and base is hairy.

**Productivity:** The average productivity of the variety was not less than 6.0 ton ha<sup>-1</sup>. Outyields registered varieties relatively. Potential productivity is 8.0-10.0 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 45-48 gram, grain protein content is 13.5-14.8%, gluten content is 25-28%.

**Resistance to diseases and climatic conditions:** Moderately sensitive to rust diseases, moderately resistant to powdery mildew, smut diseases. Wintering is good.

**Cultivation regions and preceding crops:** The variety is recommended for cultivation in irrigated lowlands, and rainfed highland and foothill regions with sufficient moisture. Cultivation after cotton and other row crops as preceding ones is recommended.

**Sowing time:** A period between the first half of October and the second half of November is considered the optimum seeding period.

**Seeding rate:** 4.5-5.0 million viable seeds should be sown per hectare. In case of late seeding this rate can be increased by 10%.

**Fertilizer norm:** Variety requires preceding cultural agricultural practice. It is recommended to apply 80-120 kg of active phosphorus, 50-60 kg of potassium per hectare before ploughing, and 100-150 kg of nitrogen fertilizers per hectare in two applications during cultivation period.



# AZAMATLI - 95

## BREAD WHEAT VARIETY



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The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2005 and is protected by patent (Patent № 00086).

**Origin:** Variety has been obtained by individual selection from bread wheat genotypes from 16<sup>th</sup> elite variety testing seed plot (*16 ESWYT-12*) introduced from *CIMMYT* and adapted to local conditions.

**General characteristics:** Variety is of medium height (94-96 cm), with hard stem, resistant to lodging, productive tillering is 2.3-2.5. Early maturing, vegetation period in irrigated condition is 215-218 days, matures 5-6 days earlier than other varieties registered. The variety is not exposed to spring-summer drought due to its early maturity characteristics.

**Diversity:** *graecum*. Spike is cylindrical, bending after reaching full maturity, oblong, density is medium, and color is white. Awns are white, relatively oblong and sparse. Spikelets are densely located within the spike, grain is of medium size, furrow is superficial, color is white, semicircular, base is hairy. Number of grains per spike is 40-42.

**Productivity:** The 3-year average productivity of the variety was 7.35 ton ha<sup>-1</sup>, which outyields the registered check variety Mirbashir-128 by 2.0-3.0 ton ha<sup>-1</sup>. During environmental tests performed in different regions of the Republic provided 25-35% more grain yield registered varieties. Potential productivity is 8.0-9.0 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 42-47 gram. Grain protein content is 14.2-15.0%, gluten content is 30-32%.

**Resistance to diseases and climatic conditions:** Variety is resistant to yellow and brown rust, infection with powdery mildew and other fungal diseases was not observed.

**Cultivation regions and preceding crops:** The variety is recommended for cultivation in irrigated, rainfed and foothill regions. In irrigated regions it is appropriate to be grown it mainly after cotton as preceding crop, but in rainfed areas after bare fallow.

**Sowing time:** A period between the second decade of October and the first decade of November in irrigated condition, and between the second decade of September and the first decade of October in rainfed foothill regions is considered the optimum sowing time for the variety.

**Seeding rate:** During optimum sowing time 4.0-4.5 million viable seeds should sown per hectare in irrigated condition, and 3.5-4.0 million in rainfed condition.

**Fertilizer rate:** Variety requires intensive cultivation. In order to obtain high and quality grain yield 80-100 kg of active phosphorus, 50-60 kg of potassium and 100-120 kg of nitrogen fertilizers should be applied per hectare.



## NURLU – 99

### BREAD WHEAT VARIETY



**Authors:** J.A. Aliyev  
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V.F.Ibadov  
M.H.Seyidov  
M.Q. Ahmedov  
M.N. Mahmudov

The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2005 and is protected by patent (Patent № 00087).

**Origin:** Variety has been obtained at the Research Institute of Crop Husbandry through individual selection from bread wheat hybrids obtained from *CIMMYT/ICARDA*.

**General characteristics:** Variety is short (70-80 cm), resistant to lodging and grain shattering. Vegetation period is 188-192 days, matures 8-10 days earlier than check varieties. Tillering is upright.

**Diversity:** *graecum*. Spike is of medium size and medium density, color is white, shape is cylindrical. Spikelet glum is of oval shape, awns are of medium length, white colored, weak. Grain of the variety is of medium size, furrow is superficial, color is white, shape is semicircular, base is hairy. Number of grains per spike is 43-47.

**Productivity:** Highly productive variety. The average productivity of the variety in the Tartar Tartar Regional Experimental Station in irrigated condition was 7.74 ton ha<sup>-1</sup>, which outyielded the check variety Mirbashir-128 by 1.54 ton. In farm condition yielded 7.5 ton ha<sup>-1</sup> grain. Potential productivity is 8.0-9.0 ton.

**Grain quality:** 1000 kernel weight is 37-40 gram. Grain protein content is 13.8-14.5%, gluten content - 27-29%. Baking quality of the variety is high.

**Resistance to diseases and climatic conditions:** Weakly infected with rust and other fungal diseases. Wintering is good in cereal growing regions of the Republic.

**Cultivation regions and preceding crops:** Cultivation of the variety in irrigated, foothill and rainfed regions with sufficient moisture is proposed. The best preceding crops for the variety in irrigated regions are perennial crops and row crops, but in rainfed condition – bare fallow and full fallow.

**Sowing time:** The optimum seeding period in rainfed foothill regions is between 20 September and 20 October, and in irrigated condition – between the 20 October and 10 November.

**Seeding rate:** The recommended seeding rate for irrigated condition is 4.5-5.0 million, and for rainfed condition - 4.0-4.5 million viable seeds per hectare.

**Fertilizer rate:** The variety requires fertilizers. Depending on preceding crops and soil fertility application of 80-100 kg of active phosphorus, 40-60 kg of potassium and 100-120 kg of nitrogen fertilizers per hectare are considered the best fertilizer rates per hectare.

# GOBUSTAN

## BREAD WHEAT VARIETY



**Authors:** J.A.Aliyev  
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A.J.Musayev  
M.H.Seyidov

The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2007 and is protected by patent (Patent № 00096).

**Origin:** Variety has been obtained by individual selection from wheat genotypes obtained from regional bread wheat observation nursery for semi-arid areas (*RBWON (SAA)-2*) of International Selection Centers and adapted for local conditions.

**General characteristics:** Variety is of medium height (96-100 cm), with hard stem, resistant to lodging, productive tillering is 2.3-2.5. Early maturing.

**Diversity:** *graecum*. Spike is cylindrical, partially bending after reaching maturity, oblong, of medium density and white color. Awns are white, rough and barbed. Spikelets are located densely within the spike, grain is of medium size, with superficial furrow, white colored, semicircular, with hairy base. Number of grains per spike is 40-45.

**Productivity:** The average productivity of the variety in irrigation conditions was 7.35 ton ha<sup>-1</sup>. It outyielded registered varieties by 20-40% during environmental tests carried out in different regions. Potential productivity is 8.0-9.0 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 40-44 gram. Grain protein content is 14.2-16.0%, gluten content - 30-31%. Possesses high technological and baking quality.

**Resistance to diseases and climatic conditions:** During study years infection of the variety with yellow rust and smut diseases was not observed. Because of its early maturity character the variety is not exposed to spring-summer drought.

**Cultivation regions and preceding crops:** The variety is recommended for cultivation mainly in rainfed, semi-arid, foothill areas and partially in irrigated regions. In rainfed regions bare fallow and full fallow, and in irrigated regions - perennial crops and row crops are considered the best preceding crops.

**Sowing time:** In highland and rainfed foothill regions a period between 20 September and 10 October, and in irrigated condition – between the second decade of October and the first decade of November are considered the optimum seeding periods.

**Seeding rate:** The recommended seeding rate for irrigated condition is 4.0-4.5 millions, and for rainfed condition - 3.5-4.0 million viable seeds per hectare.

**Fertilizer rate:** In order to obtain high and quality grain yield 80-100 kg of active phosphorus, 50-60 kg of potassium and 100-120 kg of nitrogen fertilizers should be applied per hectare.

## RUZI - 84

### BREAD WHEAT VARIETY



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A.A. Jahangirov  
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The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2007 and is protected by patent (Patent № 00098).

**Origin:** Variety has been obtained by individual selection from wheat gene pool collected for many years at the Department of Plant Physiology and Biotechnology of the Research Institute of Crop Husbandry.

**General characteristics:** Variety is of medium height (93-103 cm), with hard stem, resistant to lodging, productive tillering is 2.3-2.5. The 3-year average vegetation period in foothill dryland conditions is 254 days, maturing 5-6 days earlier than varieties regionalized for the area.

**Diversity:** *graecum*. Spike is cylindrical in shape, straight, medium size, white colored. Grain of the variety is of medium size, white color, ovoid shape, base is hairy. Spikelets are located within the spike with medium density, number of grains per spike is 33-35.

**Productivity:** The average productivity of the variety in at Gobustan Experimental Station located in rainfed area was 4.79 ton ha<sup>-1</sup>, outyielding the check variety Mirbashir-128 by 0.8-1.0 ton ha<sup>-1</sup>. At environmental tests carried out in different regions it provided 15-35% more grain yield than other registered varieties. Potential productivity in arid rainfed condition is 4.5-5.5 ton ha<sup>-1</sup>, in irrigated condition – 7.0-8.0 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 41-43 gram. Grain protein content is 12.3-12.8%, gluten content – 26.0-27.2%.

**Resistance to diseases and climatic conditions:** Moderately resistant to yellow rust, powdery mildew and smut diseases. Because of relatively early maturity character compared to check variety it is not exposed to spring-summer drought. Wintering is good.

**Cultivation regions and preceding crops:** The variety is proposed for cultivation mainly in rainfed, semi-arid and foothill regions of the Republic. Cultivation in irrigated areas is also efficient. It is appropriate to cultivate after chickpea as preceding crop and bare fallow in rainfed regions, and after perennial forage crops and row crops in irrigated regions.

**Sowing time:** The optimum sowing time in rainfed foothill and highland regions is between 20 September and 10 October, and in irrigated condition – between the second decade of October and the first decade of November.

**Seeding rate:** In rainfed foothill and highland condition the recommended seeding rate is 4.0-4.5 million, in irrigated condition – 4.5-5.0 million viable seeds per hectare.

**Fertilizer rate:** Depending on preceding crops application of 60-80 kg of active phosphorus, 50-60 kg of potassium and 70-90 kg nitrogen fertilizers by the rate of active ingredient per hectare is considered the optimum fertilizer rate.

# ARAN

## BREAD WHEAT VARIETY



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The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2009 and is protected by patent (Patent № 00117).

**Origin:** Variety has been obtained by individual selection from populations of wheat hybrids at the Research Institute of Crop Husbandry.

**General characteristics:** Variety is of medium height (96-102 cm), resistant to lodging. Medium late-maturing variety. Vegetation period is 208-221 days, matures 3-5 days later than Mirbashir 128 variety. Tillering is high, grounded. Color of sprouts and plants is green.

**Diversity:** *lutescence*. Spike is cylindrical, of medium size and medium density. Spikelet glum is oval-shaped, keel barb is short, minimally bending, nervation is poor, edge appearance is weak, shoulder shape is flat. Grain of the variety is of medium size, red color, base is hairy, furrow is superficial, shape is rounded. Number of grains per spikelet is 43-45.

**Productivity:** The 3-year average productivity of the variety at the Tartar Regional Experimental Station in irrigated conditions was 7.06 ton ha<sup>-1</sup>, outyielding Mirbashir-128 variety by 1.31 ton ha<sup>-1</sup>. Highly productive variety, potential productivity is 7.0-8.0 ton per hectare.

**Grain quality:** 1000 kernel weight is 43-48 gram. Grain vitrescence is 63-82%, grain protein content is 13.6-14.7 %, wet gluten content - 28-32 %. Baking quality of the variety is high.

**Resistance to diseases and climatic conditions:** Moderately resistant to fungal diseases and drought. Wintering is good.

**Cultivation regions and preceding crops:** Cultivation in irrigated plain regions and rainfed regions of Azerbaijan with sufficient moisture is recommended. It is appropriate to seed after cotton and row crops.

**Sowing time:** A period between the second and third decades of October.

**Seed rate:** The recommended seedrate in irrigated condition is 4.5-5.0 million, in rainfed regions – 4.0-4.5 million viable seeds per hectare.

**Fertilizer rate:** In order to obtain high yield 100-120 kg of active phosphorus, 60 kg of potassium and 100-120 kg nitrogen fertilizers should be applied per hectare.

## TALE-38

### BREAD WHEAT VARIETY



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The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2009 and is protected by patent (Patent № 00131).

**Origin:** Variety has been obtained by individual selection from wheat genotypes obtained from 2nd regional observation nursery of winter wheat for irrigated areas (2<sup>nd</sup> WWONIR-227) received from International Selection Centers and adapted for local conditions.

**General characteristics:** Variety is of medium height (92-97 cm), with hard stem, resistant to lodging, productive tillering is 2.4-2.5. Vegetation period in irrigation conditions is 223-225 days, maturing 5-7 days later than other regionalized varieties. Variety possesses high architectonics.

**Diversity:** *graecum*. Spike is erect, of medium length, white colored. Awns are of medium length, dissipated. Grain of the variety is large, white colored, base is hairy, length is medium. Spikelets are located densely within the spike, number of grains is 47-49.

**Productivity:** The average productivity of the variety in irrigated condition was 7.08 ton ha<sup>-1</sup>. This was 2.3-2.5 ton ha<sup>-1</sup> more than Giymatli 2/17 variety. During environmental tests carried out in other regions it yielded on average 1.0-1.5 ton ha<sup>-1</sup> more grain than registered varieties. Potential productivity is 8.0-9.0 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 44-49 gram. Grain protein content is 13.8-14.5%, gluten content is 26-28%.

**Resistance to diseases and climatic conditions:** Moderately resistant to yellow rust, resistant to brown rust, powdery mildew and smut diseases. Wintering is good due to biologically winter type.

**Cultivation regions and preceding crops:** Cultivation of the variety mainly in irrigated regions and highland and foothill areas with sufficient moisture is recommended. The best preceding crops for the variety in irrigated regions are perennial crops and row crops, and in foothill regions – bare fallow and full fallow.

**Sowing time:** It is considered that the optimum seeding period in irrigated condition is between the second and third decades of October, and in rainfed foothill condition – between the second and third decades of September.

**Seeding rate:** The recommended seed rate in irrigated condition is 4.5-5.0 million, and in rainfed foothill condition – 4.0-4.5 million viable seeds per hectare.

**Fertilizer rate:** Depending on preceding crops and soil fertility application of 80-100 kg of active phosphorus, 40-60 kg of potassium and 100-120 kg of nitrogen fertilizers per hectare is considered the best fertilizer rates for the variety.



# GYZYL BUGDA

## BREAD WHEAT VARIETY



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The variety was submitted to the State Committee for Testing and Protection of Selection Achievements in 2009.

**Origin:** Variety have been obtained by individual selection of wheat genotypes from the 7th winter wheat variety testing nursery (7th WON-SA №473) for semi-arid areas introduced from International Selection Centers.

**General characteristics:** Variety is of medium height (99-110 cm), with hard stem, resistant to lodging, productive tillering is 3.0-3.2. Vegetation period in highland and foothill dryland regions is 243-245 days, matures 5-7 days earlier than Bezostaya 1 variety.

**Diversity:** *lutescence*. Spike is spindle-shaped, medium, white colored, awnless. Grain of the variety is of medium size and furrow is superficial, red colored, ovoid in shape, base is hairy. Spikelets are densely located within the spike, number of grains per spike is 45-48.

**Productivity:** The average productivity of the variety at the Gobustan Regional Experimental Station in irrigated condition was 4.83 ton ha<sup>-1</sup>, outyielding the registered variety Bezostaya-1 by 0.6-0.9 ton ha<sup>-1</sup>. Potential productivity is 5-6 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 41-48 gram. Grain protein content is 14.1-15.0%, gluten content is 28.0-36.2%.

**Resistance to diseases and climatic conditions:** Resistant to yellow and brown rust, smut diseases, winter and drought.

**Cultivation regions and preceding crops:** Cultivation mainly in highland regions and arid rainfed foothill of the Republic regions is proposed. In rainfed regions cultivation after chickpeas as preceding crop and bare fallow is preferable.

**Sowing time period:** The optimum sowing time in highland and rainfed foothill condition is a period between 20 September and 10 October.

**Seeding rate:** The recommended seed rate in highland and rainfed foothill condition is 4.0-4.5 million viable seeds per hectare.

**Fertilizer rate:** Depending on preceding crops application of 60-80 kg of active phosphorus, 50-60 kg of potassium and 70-90 kg of nitrogen fertilizers per hectare is considered the optimum fertilizer rates.



# GYRMYZY GUL-1

## BREAD WHEAT VARIETY



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The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2011 and is protected by patent (Patent № 00136).

**Origin:** Variety has been obtained by individual selection of forms adapted to local conditions, differing by short height, equal distribution and architectonics from world gene pool of the Institute.

**General characteristics:** Variety is of short height (78-84 cm), with hard stem, resistant to lodging, productive tillering 2.4-2.5. Vegetation period in irrigated condition is 225 days, maturing 4-6 days later than other registered varieties. Variety possesses high architectonics

**Diversity:** *erythrospermum*. Spike is erect, short, red colored. Awns are short, dissipated, hairy. Grain of the variety is fine, shape is semi-ovoid, color is red, furrow is superficial, base is hairy. Spikelets are densely located within the spike, number of grains is 38-46.

**Productivity:** In irrigated condition the average productivity of the variety was 6.76 ton ha<sup>-1</sup>. This is 2.2-2.7 ton ha<sup>-1</sup> more yield than the registered variety Giymatli-2/17. During environmental tests carried out at Tartar and Gobustan RES it yielded on average 1.02 ton ha<sup>-1</sup> more grain product than registered varieties. Potential productivity is 7.0-8.0 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 40-46 gram. Grain protein content is 14.2-14.8%, gluten content – 26.8-28.2%.

**Resistance to diseases and climatic conditions:** During the studied years infection of the variety with yellow rust and smut diseases was not observed, in some years it was mildly infected with brown rust. It is frost resistant.

**Cultivation regions and preceding crops:** Cultivation of the variety mainly in irrigated and in highland and foothill regions of the Republic with sufficient moisture is recommended. The best preceding crops for the variety in irrigated regions are perennial crops and row crops, and in foothill regions– bare fallow and seeded fallow.

**Sowing time:** Optimum sowing time in irrigated condition is the period between the second and third decades of October, and in rainfed foothill condition – between the second and third decades of September.

**Seeding rate:** The recommended seed rate in irrigated condition is 4.5-5.0 million, and in rainfed foothill condition – 4.0-4.5 million viable seeds per hectare.

**Fertilizer rate:** Depending on preceding crops and soil fertility application of 80-100 kg of active phosphorus, 40-60 kg of potassium and 100-120 kg of nitrogen fertilizers per hectare is considered the best fertilizer rates for the variety.

## LAYAGATLI – 80

### BREAD WHEAT VARIETY



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The variety was submitted to the State Committee for Testing and Protection of Selection Achievements in 2011.

**Origin:** Variety has been obtained by individual selection of wheat genotypes from 7th winter wheat variety testing nursery (7th WON-SA №473) for semi-arid areas introduced from International Selection Centers.

**General characteristics:** Variety is of medium height (98-108 cm), with hard stem, resistant to lodging, productive tillering is 3.2-3.6. Vegetation period in highland and foothill regions is 242-246 days, matures 6-8 days earlier than Bezostaya-1 variety.

**Diversity:** *erythrospermum*. Spike is spindle-shaped, medium sized, white colored, awned. Awns are weak and branched. Grain of the variety is of medium size and furrow is superficial, red colored, ovoid in shape and base is hairy. Spikelets are located within the spike moderately dense, number of grains per spike is 52-54.

**Productivity:** The average productivity of the variety in rainfed condition at Gobustan Regional Experimental Station was 5.42 ton ha<sup>-1</sup>, outyielding the registered Bezostaya-1 variety by 1.0-1.5 ton ha<sup>-1</sup>. Potential productivity in highland and rainfed foothill condition is 5.5-6.0 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 39-41 gram. Grain protein content is 14.6-15.1%, gluten content is 30.6-34.4%.

**Resistance to diseases and climatic conditions:** Resistant to yellow and brown rust, powdery mildew, smut diseases, winter and drought.

**Cultivation regions and preceding crops:** The variety is recommended for cultivation mainly in rainfed highland and foothill regions of the Republic. In rainfed regions sowing after chickpea as preceding crop and bare fallow is preferable.

**Sowing period:** The optimum seeding period in highland and foothill dryland conditions is a time between the 20<sup>th</sup> of September and the 10<sup>th</sup> of October.

**Seed rate:** The recommended seed rate in highland and rainfed foothill condition is 4.0-4.5 million viable seeds per hectare.

**Fertilizer rate:** Depending on preceding crops application of 60-80 kg of active phosphorus, 50-60 kg of potassium and 70-90 kg of nitrogen fertilizers per hectare is considered the optimum fertilizer rates for the variety.

# GARABAGH

## DURUM WHEAT VARIETY



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The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2008 and is protected by patent (Patent № 00102).

**Origin:** Variety has been obtained by individual selection from intraspecific hybridization of the Tunisian origin Bida NP and the local Tartar varieties at the Research Institute of Crop Husbandry.

**General characteristics:** Variety is of winter type, medium height (97-104 cm), medium maturing, tillering is high; plant color in stem elongation stage is light green. Plant stem is hard, fully resistant to lodging. Vegetation period is 188-193 days, matures 3-5 days later than the check variety.

**Diversity:** *provinciale*. Spike is spindle shaped, of black color, medium size and density. Awns are oblong, parallel, with rough barbs, black colored. Spikelet glumes are oblong oval, short and nervated. Grain of the variety is large, furrow is medium type, color is white, shape is oblong.

**Productivity:** Productivity of the variety under good agrotechnical care ranged between 5.5 and 7.5 ton ha<sup>-1</sup>. It outyielded other registered durum wheat varieties by 0.5-0.8 ton ha<sup>-1</sup>. Potential productivity in irrigated agriculture is 7.0-8.0 ton ha<sup>-1</sup>.

**Grain quality:** 1000 kernel weight is 55-59 gram. Grain vitrescence is 98-100%, grain protein content is 14.0-16.2%, gluten content is 27-29%. The overall pasta quality is very high.

**Resistance to diseases and climatic conditions:** Resistant to rust diseases, powdery mildew and covered smut, moderately resistant to drought. Wintering is good.

**Cultivation regions and preceding crops predecessors:** Cultivation in irrigated lowland, foothill and plain rainfed regions of the Republic is recommended. In irrigated regions it is appropriate to be grown after cotton as preceding crop, and in rainfed regions – after bare fallow.

**Sowing time:** The optimum sowing time is from the 20th of October until the 10th of November.

**Seeding rate:** During the optimum sowing time 4.0-4.5 million seeds per hectare in irrigated agriculture, and 3.5-4.0 million viable seeds per hectare in rainfed agriculture is recommended.

**Fertilizer rate:** In order to obtain high and quality grain-grades 90-120 kg of active phosphorus, 50-60 kg of potassium, and 90-120 kg of nitrogen fertilizers per hectare should be applied.

## GARABAGH - 7

### BARLEY VARIETY



**Authors:** H.S.Huseynov  
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The variety has been included in the State Register Selection achievements of the Republic of Azerbaijan in 2008 and is protected by patent (Patent № 4659).

**Origin:** The variety was produced using the World Collection by means of mass selection at the Tartar Regional Experimental Station of Research Institute of Crop Husbandry.

**General characteristics:** Variety is of the intensive type, resistant to lodging. Plant height ranges between 87 and 106 cm. Vegetation period is 167-211 days. Tillering is moderate. The plant is pale yellow in phase of grain filling.

**Diversity:** *nutans*. Awned ears are in two rows. Straw is yellow. Length and density of ears are medium. Length of scale is medium, veins are poorly visible. Awns are partly long, toothed, yellow-colored and may drop off. Medium-sized grains are yellow.

**Productivity:** At Tartar Regional Experimental Station a three year average productivity of the variety under irrigated conditions was 55.3 ton ha<sup>-1</sup>. The variety is highly productive. Potential productivity is 5.5-6.0 ton ha<sup>-1</sup>.

**Grain quality:** Grains are medium-sized. The weight of 1000 grains is 40-41 gram. Protein content is 10-11 %.

**Tolerance to diseases and climatic conditions:** Slightly susceptible to rust and powdery mildew diseases. Resistant to smut diseases. Wintering is good.

**Cultivation regions and preceding crops:** The variety is recommended for cultivation in irrigated areas of Garabagh plains and in other irrigated regions of the Republic. Intercropping plants are considered as the best preceding crops under irrigated conditions.

**Sowing period:** The period from the second half of October to the first half of November is considered optimum sowing time.

**Seeding rate:** 3.0-3.5 mln. viable seeds should be sown per hectare. For delayed sowing this rate could be increased by 10%.

**Fertilizer norm:** Because of the high productivity the variety should be cultivated under preceding cultural agricultural practice 90-100 kg of active phosphorus, 50-60 kg of potassium fertilizers should be applied before ploughing and 80 kg of nitrogen fertilizer in two applications during the vegetation period.

# CHEREZ

## VARIETY OF PEANUT



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The variety was submitted to the State Commission for Testing and Protection of Selection Achievements in 2005.

**Origin:** The variety was developed by means of individual selection of peanut genotypes (ICGV93143) introduced from International Research Institute for the Semiarid Tropics (IKRISAT) and adapted to local conditions.

**General characteristics:** The height of plant is 50-55 cm; number of branches is 4-5. There are 20-25 pods and 45-48 grains in the plant. Vegetation period is in the range of 170-175 days.

**Diversity:** *Arachis hypogaea L. fastigiata vulgaris*. Leaves are entire, large, green, oval-shaped and hairless. Stem has 7-9 chum-staff. Grains are large, longish with light red color.

**Productivity:** The variety forms more total dry biomass due to high tillering ability and tallness. A three year average productivity of the variety in humid rainfed areas of Sheki-Zagatala regions was 2.67 ton ha<sup>-1</sup>. This is 0.74-1.20 ton ha<sup>-1</sup> more than that of registered variety Zagatala 295/1. Potential productivity is 3.0-3.5 ton ha<sup>-1</sup>.

**Grain quality:** The 1000 kernel weight is 850-900 gram. Oil content in grains ranges from 55 to 59%. It has high taste qualities.

**Tolerance to diseases and climatic conditions:** The variety is resistant to Ascochyta and fusariose diseases. Moderately tolerant to drought.

**Cultivation regions and preceding crops:** Recommended cultivation areas for the variety are humid rainfed areas of Sheki-Zagatala regions as well as irrigated regions of the Republic. Autumn cereals, spring row crops and bare fallow are considered the best preceding crops for this variety.

**Sowing period:** Optimum sowing period is between the last decade of April and the first decade of May.

**Seeding rate:** 100-115 kg of viable seeds should be sown per hectare.

**Fertilizer rate:** Taking into consideration soil fertility and increased crop yield 60-80 kg of active phosphorus, 50-60 kg of potassium and 50-80 kg of nitrogen fertilizers should be applied per hectare. 30% of nitrogen fertilizer should be used before sowing, 40% 2-3 weeks after germination and the rest 30% at the pod formation and grain filling stage.